

GP-302756

ALUMINUM ALLOY FOR ENGINE BLOCKS

ABSTRACT OF THE DISCLOSURE

- [0041] An aluminum alloy is disclosed that is suitable for casting and machining cylinder blocks for engines, especially gasoline fuel engines for automotive vehicles. The casting has the strength and wear resistance to
- 5 piston/seal scuffing for such engines. The alloy comprises, by weight, 9.5 to 12.5 % silicon, 0.1 to 1.5 % iron, 1.5 to 4.5 % copper, 0.2 to 3 % manganese, 0.1 to 0.6 % magnesium, 2.0 % max zinc, 0 to 1.5 % nickel, 0.25 % maximum titanium, up to 0.05 % strontium and the balance aluminum, where the weight ratio of manganese to iron is 1.2 to 1.75 or
- 10 higher when the iron content is equal to or greater than 0.4 % and the weight ratio of manganese to iron is at least 0.6 to 1.2 when the iron content is less than 0.4 % of the alloy.